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AUTHOR Wheeler, Valerie
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ABSTRACT

Research evidence currently indicates that young children's communication skills for both the speaker and the listener roles are often ineffective. The accuracy of children's ccmmunication improves gradually over the elementary school years. Current thinking in the area of metacognition may be very useful in understanding the development of children's performances as communicators. Metacognition has been defined as one's knowledge ccncerning one's own cognitive processes. Children's developing knowledge about the process of communication is one kind of metacognitive development. Three basic metacognitive skills are important for the listener and the speaker. In order to construct adequate messages, young persons mus have some understanding cf what kinds of messages are good and what kinds are poor. Given a particular communicatien situation, children need to understand that message quality influences communication effectiveness. In contrast to listeners, whc must know when and how to provide feedback to the speaker, speakers must be sensitive to the listener's comprehension and know how to modify unclear messages. Further research in the area of metacognition will expand understanding of communication development in children and enable adults to facilitate this development in children who experience communication difficulties. (Author/RH)

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Communication development and metacognition in children

Valerie Wheeler

University of Rochester

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Effective communication is an important skill for school-age children. Many classroom and playground activities require that children be able to communicate accurately with others. Furthermore, children's ability to communicate effectively is related to their acceptance and liking by peers.

In my presentation today, I will review how children's communication skills have been studied by researchers and what the findings of these studies suggest about communication development in children. I then plan to discuss current thinking in the area of metacognition and its implications for understanding children's communication development. Finally, I will describe how adults may facilitate the development of communication skills in children.

The most common method for examining children's communication skills is the referential communication paradigm. In this task, one person serves as a speaker and is asked to describe an object, picture, or word - called the referent - so that another person, the listener, can select the referent from a group of potential referents solely on the basis of the speaker's verbal message. The number of correct referent choices made by the listener serves as a measure of communication success or effectiveness.

In one type of referential communication task, a set of novel graphic designs is employed. These designs are intentionally constructed to be difficult to name or characterize. The speaker's task is to describe each design so that the listener can select the correct design from a group of similar designs. In a study by Krauss & Glucksberg (1970), kindergarten through fifth-grade children served as subjects. The findings showed clear age differences in communication effectiveness. Kindergarten children

made the greatest number of errors and showed no improvement over time despite feedback about their performance. In contrast, the older children's communication performance improved with feedback and was highly successful. These age differences were attributed to the speaker's ability to construct effective messages containing useful information. This type of skill is important in school and peer group settings. Classroom activities like show-and-tell or book reports require that children be able to provide clear, full descriptions in a coherent fashion. Other children will soon lose interest if they can't follow what's going on. When children work together on projects, they need to be able to express their ideas accurately so that both partners have a shared notion of what the task is and how they will complete it. Dramatic play also requires that children be able to describe actions, make suggestions, and engage in role-typed conversations.

Other researchers (e.g., Asher & Oden, 1976) have used word pairs rather than abstract designs in their tasks. The speaker and listener are each shown a pair of words, one of which is underlined. The speaker knows which word is underlined but the listener does not. The speakers' task is to provide a one-word clue or message that would help the listener pick the underlined word, called the referent. When the two words in the pair are dissimilar (for example, city and wash), any potential clue that the speaker gives for the referent is unlikely to be associated with the nonreferent. The probability that the clue will be effective is high. However, when the two words are similar (for example, mitten and glove), it is necessary for the speaker to compare the potential clue with both of the words in order to be sure that the clue is associated only with the referent. If such comparisons are not made, the probability that the clue will be effective is low.

Results from studies using the word pair communication task show that

young children are less effective communicators than are older children, especially on the similar word pairs. These age differences are explained by the fact that young communicators do not engage in adequate comparison activity.

Making comparisons is needed in "real life" communication situations. For example, giving instructions to another child requires the ability to make fine discriminations. Only essential information should be included - too little information is not helpful and too much may be confusing.

Another communication task has been used by Flavell and his colleagues (Flavell, Botkin, Fry, Wright, & Jarvis, 1968). These researchers had elementary school children teach a game to a listener who was either sighted or blindfolded. Children gave rather useful information to the sighted person but far less useful information when the listener was blind. For example, children might say "Put the red piece here." A blindfolded listener is clearly unable to determine which pieces are colored red or where "here" is. These results suggest that the children were failing to consider the listener's perspective in communicating to another person.

In everyday communication situations, children need to take the other child's thoughts and feelings into account. A child who hasn't watched the television show that everyone is discussing needs to be given some background information. Knowing how to give feedback and criticism also requires consideration of the other child's feelings. Statements like "Maybe it'll work better if we do it this way" are likely to be much more successful than those like "That's never gonna work - how stupid can you be!"

In sum, the findings in general indicate that young children in the early elementary school years are less accurate communicators than are children in the later elementary school years. The reasons for young child-

ren's difficulty include: (1) inability to create and express effective verbal descriptions, (2) not recognizing that effective communication involves making fine distinctions, and (3) failing to consider the listener's perspective.

In these earlier studies, the research focus was predominately on the speaker's ability to formulate effective messages and on the development of speaker skills in children. More recently, investigators have attempted to study the role of the listener in communication and to describe the development of listener skills in children.

What can listeners do to improve communication performance? First of all, listeners can recognize when a message is unclear and,secondly, if they do not understand, listeners can indicate to the speaker that more information is needed.

Research evidence indicates that young children may not realize when they don't understand a speaker's message. For example, Asher (1976) found that younger children were less accurate evaluators of good and poor messages than were older children. Similarly, Bearison & Levey (1977) found that kindergarten and second-grade children were less able to recognize ambiguous messages and less able to explain why particular messages were uninformative than were fourth-graders. In another study, Markman (1977) asked children to evaluate instructions about how to play a game or perform a magic trick. The instructions were designed to be incomprehensible to all children since critical information was intentionally deleted. The measure of whether the children realized that they had understood how to perform the tasks was whether or not they asked a question or requested more information. The youngest children (first-graders) were generally unaware that their comprehension was faulty. They often failed to ask for more information despite the experimenter's probes to elicit such questions.

In the classroom, the child's likelihood of benefiting from the teacher's instructions certainly depends in part on the ability to listen effectively. If children do not notice comprehension problems, they may not think of asking questions as a strategy for solving these problems.

In additional studies on the development of listener competence, investigators have used a variation of the referential communication paradigm (Cosgrove & Patterson, 1977; Ironsmith & Whitehurst, 1978). In order to examine children's listener skills, adult speakers give messages which systematically vary in their informational value - messages are either fully informative or ambiguous. The number of questions that children ask in response to ambiguous messages serves as the measure of listener skill. Findings from studies employing this communication task show that younger children ask fewer questions and choose fewer correct referents than do older children (Cosgrove & Patterson, 1977; Ironsmith & Whitehurst, 1978).

In summary, the research evidence to date indicates that young children's communication skills for both the speaker and the listener roles are often ineffective and that the accuracy of children's communication improves gradually over the elementary school years.

Current thinking in the area of metacognition may be very useful in understanding the development of children's performances as communicators. "Metacognition" has been defined as one's knowledge concerning one's own cognitive processes (Flavell, 1977). Children's developing knowledge about the process of communication is one kind of metacognitive development.

What might children come to know or learn about communication? And how might this knowledge influence communication performance? Patterson & Kister (1978) proposed three basic metacognitive skills for the listener role in communication:

First, the listener needs to determine the adequacy of the speaker's

message. Is it clear; does it make sense? As I mentioned earlier, there is considerable research to show that young children often do not recognize inadequate messages and consequently they attempt to complete communication tasks even when they do not understand.

Second, the listener needs to understand that message quality influences communication effectiveness. Even if children are able to evaluate message quality, they may be unlikely to do so unless they understand the relationship between message quality and communication performance. A series of studies by Robinson & Robinson (1976;1977) showed that young children consistently blamed the listener rather than the speaker for problematic communication. Children's failure to realize that faulty messages may be responsible for communication difficulties may be one reason why children fail to ask questions and request clarification in the referential communication situations.

Third, the listener needs to know when and how to provide feedback to the speaker about message quality. Even if children realize that a message is unclear and understand the importance of message quality, they still may not know how to request further information from the speaker. In a study by Ironsmith & Whitehurst (1978), children's requests for information were coded as either general or specific. General questions were those in which children told the speaker that they didn't understand but did not indicate exactly what they needed to know. Specific questions were those in which the listener asked the speaker to provide precisely the needed information. The youngest children (first-graders) asked few, if any, questions. Second graders asked mostly general questions. By the fourth and sixth grades, children made specific requests for information when messages were ambiguous.

These three basic metacognitive skills are also important for speaker competence. In order to construct adequate messages, young speakers must have

some understanding of what kinds of messages are good and what kinds are poor. Given a particular communication situation, the speaker must predict whether one message or another would be most effective. This judgment requires the subskills of engaging in comparison activity and also of role-taking ability. For example, the same message may be appropriate for one listener but inappropriate for another. One often has to be more explicit for a stranger than for a familiar person, for a young child than for an adult, or for someone on the phone than for someone in the room. Speakers must also recognize the importance of message quality for communication success. In contrast to listeners, who must know when and how to provide feedback to the speaker, speakers must be sensitive to the listener's comprehension and know how to modify unclear messages.

It should be noted that there are certain skills which are important for both roles and other skills which may be unique to each role. Good communicators have some understanding of the requirements of each role and know when and how to perform in each role.

How might adults facilitate the development of communication skills in children? Oden & Asher (1977) coached socially isolated children on social skills for friendship-making. The social concepts of communication, participation, cooperation, and validation were selected for the training. The coaching procedure included: (1) instruction from an adult about social skills relevant to friendship, (2) playing games with peers to practice the social skills, and (3) a post-play review session with the coach. Communication - that is, talking with the other person and listening - was proposed to the child as a way to make a game fun to play with another person. Children were asked to give specific behavioral examples of communication and to evaluate whether those behaviors would make the game more enjoyable. The coaching procedure prompts children to think about communication and make predictions

about its effects on peers. The play session requires children to practice communication skills with peers and to monitor the communication process. The review session helps children to evaluate the effectiveness of their communication attempts and to modify their behaviors in light of feedback from peers. Coaching was very effective in helping children learn new skills for making friends.

Cosgrove & Patterson (1977) used a different approach to facilitate children's performances as listeners. Four, six, eight, and ten year old children first played the role of listener while an adult speaker produced messages which varied in informational adequacy. The number of questions children asked in response to inadequate messages served as the pre-training score. Then, some children were given a plan for effective listening. The experimenter told the children "Let's try to think of something you could do to help you play this game even better. Let's see... I know what you can do. Whenever you are not sure what the right answer is, you can ask questions to help yourself figure it out."

These "plans" improved all but the 4 year old children's communication performances. Children who received the plan asked more useful questions following unclear messages and their communication accuracy improved. Why were the plans effective? Several reasons are plausible. First, the plans encouraged children to engage in comparison activities in order to ask discriminating questions. Second, the plans indicated to the children exactly what to do when messages were inadequate.

These findings show that children's communication performance can be improved if children are helped to understand the important factors in communication and taught specific communication skills.

To conclude, much evidence has been accumulated about children's communication effectiveness and its improvement as children grow older.

Only recently, however, have researchers begun to investigate the skills and knowledge required for communication success and to study the development of these skills and knowledge in children. Current research and thinking in the area of metacognition has provided a framework for understanding children's knowledge about communcation and how this knowledge may influence communication performance. Further research will expand our understanding of communication development in children and enable us to facilitate this development in children who experience communication difficulties.

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